

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

HEADWATER RESEARCH LLC

Plaintiff,

v.

SAMSUNG ELECTRONICS CO., LTD and
SAMSUNG ELECTRONICS AMERICA, INC.,

Defendants.

Case No. 2:22-CV-00422-JRG-RSP

FILED UNDER SEAL

**SAMSUNG'S OPPOSITION TO HEADWATER'S MOTION
FOR PARTIAL SUMMARY JUDGMENT OF:
(1) NO INVALIDITY BASED ON THE T-MOBILE G1 SYSTEM AND (2) NO
ANTICIPATION BASED ON ANDROID 1.6 PLUS JUICE DEFENDER (DKT. 245)**

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PUBLIC VERSION**EXHIBIT INDEX & NOTES**

Exhibit	Description
1	https://www.youtube.com/watch?v=OUemfrKe65c , SAM-HW00678150 (native video file provided via a thumb drive)
2	Excerpts from Presentation, HW 00092365
3	Excerpts from T-Mobile User Manual, SAMSUNG PRIORART0005177
4	Excerpts from Android 1.6's Compatibility Definition, HW 00092334
5	Excerpts from the Deposition of Erik de la Iglesia, taken May 2, 2024
6	Excerpts from Headwater 1st Supp. Resp. to Samsung RFA

* Emphasis added unless otherwise noted.

** Form objections are omitted from deposition transcript quotations unless otherwise noted.

*** In this brief, “Headwater” refers to Plaintiff and its purported predecessors.

I. INTRODUCTION

Attempting to distract from its case’s numerous shortcomings, Headwater effectively seeks to exclude Samsung’s *entire invalidity case* at the summary judgment stage.¹ Indeed, while Headwater frames its Motion (D.I. 245) as a motion for “partial” summary judgment, it seeks to remove from the case Samsung’s *entire prior art bases* for purposes of 35 U.S.C. §§ 102-103—the T-Mobile G1 running Android 1.6 or 1.0.² It does so, even though nearly every statement included in Headwater’s “Statement of Undisputed Material Facts,” for which Headwater unsurprisingly cites no evidentiary support, *is disputed*. See Section VI, *infra*.

Headwater’s Motion can be broken into three main arguments, each of which grossly mischaracterizes the opinions and evidence relied upon by Samsung’s expert, Dr. Dan Schonfeld:

1. Headwater alleges that the T-Mobile G1 running Android 1.6 fails to satisfy or render obvious limitations 1[f] and 1[g] of the ’976 patent;
2. Headwater alleges that the T-Mobile G1 running Android 1.0 fails to satisfy or render obvious limitations 1[f] and 1[g] of the ’976 patent;
3. Headwater alleges that the T-Mobile G1 running Android 1.6, with the JuiceDefender application, does not anticipate any asserted claim.

See D.I. 245 at 3-4 (“Headwater’s Statement of Issues to be Decided”). For all three arguments, Headwater devotes most of its pages arguing about the sufficiency of the evidence. See, e.g., *id.* at 2 (“Dr. Schonfeld fails to provide any sufficient or credible evidence that discloses or renders obvious limitations 1[f] and 1[g].”). But that is clearly a factual question best left for trial. See *Realtime Data, LLC v. Actian Corp.*, No. 6:15-CV-463 RWS-JDL, 2017 WL 2262997, at *4 (E.D.

¹ While Headwater’s Motion focuses on the ’976 patent, its requested relief (no invalidity based on Samsung’s prior art systems) applies to all Asserted Patents. E.g., D.I. 245 at 2 n.2.

² Headwater contemporaneously filed additional motions for “partial” summary judgment relating to Samsung’s “written description” and “inequitable conduct” defenses. See D.I. 230; D.I. 243.

Tex. Apr. 19, 2017) (denying motion for summary judgment and stating that “challenges to the sufficiency of this evidence can be presented . . . for the jury’s consideration”); *Maxell, Ltd. v. Apple Inc.*, No. 5:19-CV-00036-RWS, 2020 WL 8269548, at *19 (E.D. Tex. Nov. 11, 2020) (arguments about sufficiency of the evidence are “better reserved for trial”).

First, Headwater’s Motion hinges on a deliberate mischaracterization of Dr. Schonfeld’s evidentiary support. For example, Headwater falsely claims that Dr. Schonfeld’s only support for his opinions is the “uncorroborated deposition testimony” of Google’s 30(b)(6) witness, Jeff Sharkey. *See id.* at 10, 12,³ 20. But Dr. Schonfeld also relied on: (1) Android OS source code, including for the Activity, ActivityManager, ConnectivityManager, SyncSettings, and SyncManager files among many others; (2) a technical presentation from Google (for which Samsung produced the PowerPoint slides and video); (3) a physical T-Mobile G1 device; (4) a T-Mobile G1 User Manual; (5) Android compatibility documents; and (6) additional witness testimony, including from T-Mobile’s corporate designee, Hannah Sifuentes, who authenticated and testified about the physical T-Mobile G1 during her deposition. *See, e.g.*, D.I. 239-1 at ¶¶ 380-421, 487-514; D.I. 239-1 at Appendix B, ¶¶ 17-29, 45-50. But even if Dr. Schonfeld’s opinions were not supported by substantial corroborative evidence (and they are), Google testimony, from a Google engineer, about a Google prior art product is clearly evidence that Dr. Schonfeld is entitled to rely upon and that the jury can appropriately consider.⁴

³ Because Headwater appears to copy and paste arguments from its motion to strike Dr. Schonfeld’s opinions, D.I. 240, Headwater’s summary judgment motion improperly asks the Court to strike Dr. Schonfeld’s opinions. D.I. 245 at 12 (“His opinions should therefore be struck.”).

⁴ Headwater’s denigration of Mr. Sharkey as an unreliable source of information is also confounding, given that Headwater’s infringement expert, Dr. Wesel, cites to Mr. Sharkey’s deposition ~**100** times in his opening report, and Headwater’s validity expert, Mr. de la Iglesia, references Mr. Sharkey and his testimony approximately **1,400 times** in his rebuttal report.

Second, Headwater’s Motion rests on an apparent misunderstanding of Dr. Schonfeld’s claim mappings. With respect to limitation 1[f], Dr. Schonfeld explained how the T-Mobile G1 (whether running Android 1.6 or 1.0) included a differential traffic control policy that could be enabled by an end-user to restrict certain Android applications’ use of the network when operating in the background. For the T-Mobile G1 running Android 1.6, this could be done using the phone’s “‘Background Data’ policy setting” or the “‘Auto-sync’ and ‘Application sync’ policy settings.” D.I. 239-1 at ¶ 395; *id.* at ¶¶ 392-405. For the T-Mobile G1 running Android 1.0, it would be done using just the “‘Auto-sync’ and ‘Application sync’ policy settings.” *Id.* at ¶ 498; *id.* at ¶¶ 495-503. Those policy settings, which restrict certain applications’ ability to use the network when operating in the background, are predicated on the T-Mobile G1 being configured to classify whether the applications are in the foreground or background (which is required by 1[e] of the ’976 patent).⁵ *Id.* at ¶¶ 380-91, 487-94; D.I. 239-4 at 336:20-337:2, 344:4-17, 347:5-348:12.

For limitation 1[g], Dr. Schonfeld explained how, after classifying an application as not interacting with a user in the foreground (limitation 1[e]) and applying a differential traffic control policy that disallows Internet service activity for an application when it has been classified as not being in the foreground (limitation 1[f]), the T-Mobile G1’s processor was configured to indicate to the application via one or more APIs (e.g., ConnectivityManager’s “getBackgroundDataSetting” API or SyncManager APIs) network access conditions based on the

⁵ For limitation 1[e] of the ’976 patent, Dr. Schonfeld explained that the T-Mobile G1 (whether running Android 1.6 or 1.0) included “one or more processors configured to” classify whether a first end-user application is in the foreground or background. D.I. 239-1 at ¶¶ 380-91, 487-94. Notably, Headwater’s Motion does not challenge Dr. Schonfeld’s analysis for limitation 1[e], and so the Court must assume, for purposes of deciding whether to grant summary judgment, that the T-Mobile G1 classifies “whether or not the first end-user application, when running, is interacting in the device display foreground with the user.” D.I. 42-6 (’976 patent), cl. 1.

applied policy. D.I. 239-1 at ¶¶ 407-21, 504-14.

Third, with respect to the T-Mobile G1 running Android 1.6 with the JuiceDefender application installed, Headwater’s argument rests on: (1) the incorrect assumption that because JuiceDefender is not part of the Android OS, there can be no anticipation; and (2) an incorrect understanding of the relevant law regarding the “known or used” prong of pre-AIA 35 U.S.C. § 102(a). D.I. 245 at 27-29. With respect to the former, there is no requirement that an application/program be part of the prior art’s underlying operating system. With respect to the latter, there is a genuine dispute as to whether phones with JuiceDefender installed (whether in the U.S. or elsewhere) were known by people in the United States before the May 2010 priority date.

* * *

Samsung asserts these prior art systems anticipate and render obvious all asserted claims, and Dr. Schonfeld explains how they anticipate and render obvious the identified limitations. Dr. Schonfeld’s opinions do not lack support. Indeed, Headwater challenges the sufficiency of the evidence, not whether evidence exists. But just because Headwater disagrees with Dr. Schonfeld’s conclusions, or the evidence he chose to rely on, does not justify its motion for summary judgment.

When deciding whether to grant summary judgment, “[a]ll reasonable inferences to be drawn from the underlying facts must be viewed in the light most favorable to the party opposing the motion, and any doubt must be resolved in its favor.” *Hearing Components, Inc. v. Shure, Inc.*, No. 9:07-CV-104, 2008 WL 11348002, at *1 (E.D. Tex. Dec. 16, 2008). Because Dr. Schonfeld’s opinions are clearly supported, the Court should—at a minimum—find that genuine disputes of material facts exist, and that summary judgment is improper. *Id.*

II. COUNTER-STATEMENT OF THE ISSUES TO BE DECIDED

1. Whether genuine issues of material fact preclude summary judgment of no

anticipation and no obviousness with respect to the T-Mobile G1 running Android 1.0 or 1.6?

2. Whether genuine issues of material fact preclude summary judgment of no anticipation with respect to the T-Mobile G1 running Android 1.6 with JuiceDefender?

III. LEGAL STANDARDS

A. Summary Judgment

“Summary judgment is proper only where the full record, including the pleadings, depositions, answers to interrogatories, admissions, and affidavits, demonstrates that there is no genuine issue of material fact and that the moving party is entitled to judgment as a matter of law.” *Shure*, 2008 WL 11348002, at *1 (denying plaintiff’s motion for summary judgment of validity). “The moving party must identify the basis for granting summary judgment and identify the evidence that demonstrates the absence of a genuine issue of material fact.” *Tinnus Enterprises, LLC v. Telebrands Corp.*, No. 6:16-CV-00033-RWS, 2017 WL 8727624, at *2 (E.D. Tex. Aug. 11, 2017) (denying plaintiff’s motion for summary judgment of non-obviousness).

“A dispute about a material fact is genuine if ‘the evidence is such that a reasonable jury could return a verdict for the nonmoving party.’” *EVM Sys., LLC v. Rex Med., L.P.*, No. 6:13-CV-184, 2015 WL 4911090, at *1 (E.D. Tex. Aug. 17, 2015) (denying plaintiff’s motion for summary judgment of no anticipation and non-obviousness) (quoting *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986)). “All reasonable inferences to be drawn from the underlying facts must be viewed in the light most favorable to the party opposing the motion, and any doubt must be resolved in its favor.” *Shure*, 2008 WL 11348002, at *1 (citing *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 587 (1986)). “In deciding a motion for summary judgment, the court does not weigh the evidence; rather, it will determine only whether a genuine issue of material fact exists.” *Id.* (citing *Anderson*, 477 U.S. at 248-49).

B. Anticipation and Obviousness

“To invalidate patent claims based on prior art, the challenger to the patent must show by clear and convincing evidence that the earlier invention is prior art under § 102 and the earlier invention includes all elements of the claims at issue.” *EVM Sys.*, 2015 WL 4911090, at *2 (internal citation omitted). “Anticipation is a question of fact.” *Id.* (citing *Apple Computer, Inc. v. Articulate Sys., Inc.*, 234 F.3d 14, 20 (Fed. Cir. 2000)). “A patent is invalid under 35 U.S.C. § 103(a) ‘if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art (‘PHOSITA’) to which said subject matter pertains.’” *Id.* “Obviousness under § 103(a) is a question of law based on underlying facts.” *Id.* (citing *Winner Int’l Royalty Corp. v. Want*, 202 F.3d 1340, 1348 (Fed. Cir. 2000)). “Factual inquiries necessary for establishing obviousness include,” but are not limited to, “the scope and content of the prior art” and “the differences between the claimed invention and the prior art.” *Id.*

IV. ARGUMENT

A. Dr. Schonfeld Demonstrated That the T-Mobile G1, Running Android OS 1.6 or 1.0, Anticipates and/or Renders Obvious the Asserted Claims

As an initial matter, Headwater only challenges whether the T-Mobile G1 satisfies limitations 1[f] and 1[g] of the ’976 patent. *See* D.I. 245 at 3. As explained in Headwater’s Motion, claim 1 of the ’976 patent requires “one or more processors configured to”:

1[e] classify, for a first end-user application capable of interacting in the device display foreground with a user and capable of at least some Internet service activity when not interacting in the device display foreground with the user, whether or not the first end-user application, when running, is interacting in the device display foreground with the user;

1[f] for a time period when data for Internet service activities is communicated through a WWAN modem connection to the at least one WWAN, apply a first differential traffic control policy to Internet service activity on behalf of the first

end-user application, such that Internet service activity on behalf of the first end-user application is disallowed when the one or more processors classify the first end-user application as not interacting in the device display foreground with the user, and

1[g] indicate to the first end-user application, via an application program interface (API), one or more network access conditions based on the applied first differential traffic control policy.

D.I. 42-6 ('976 patent), cl. 1.

First, as shown in yellow above, limitation 1[e] describes a classification as to “whether or not” a “first end-user application” is “interacting in the device display foreground with the user.” *Id.* Second, as shown in blue above, limitation 1[f] “appl[ies] a first differential traffic control policy” based on the outcome of limitation 1[e]’s antecedent classification (i.e., the differential traffic control policy is applied when the applications is classified as not interacting in the device display foreground with the user). *Id.* Finally, as shown in green above, limitation 1[g] “indicate[s] to the first end-user application, via an application program interface (API), one or more network access conditions based on the applied differential traffic control policy. *Id.*

Dr. Schonfeld explains how the T-Mobile G1 (running Android 1.6 or 1.0) satisfies these limitations or renders them obvious. D.I. 239-1 at ¶¶ 380-421, 487-514. Section IV.A.1-2, *infra*. That his opinions (which are supported by the evidence, including Android source code) do not also rely on source code for applications, including Gmail, Calendar, and Contacts, is irrelevant.

1. The T-Mobile G1 Running Android 1.6

a. Dr. Schonfeld’s Opinions Are Supported by the Evidence

i. Limitation 1[e] of the '976 Patent

As explained by Dr. Schonfeld with respect to limitation 1[e], the T-Mobile G1 running Android 1.6 had a processor that classified whether applications were running in the foreground or the background. D.I. 239-1 at ¶¶ 380-91, 487-94; D.I. 239-1 at Appendix B, ¶¶ 17-29, 45-50.

In support of this opinion, Dr. Schonfeld relied on Mr. Sharkey’s deposition testimony, D.I. 239-1 at ¶ 382, Android 1.6’s ActivityManager class, *id.*, Android’s ConnectivityManager class, *id.*, Headwater’s infringement contentions, *id.* at ¶ 383, Android 1.6’s “fundamentals” file, *id.* at ¶ 384, a physical T-Mobile G1 device produced by Samsung in this litigation, *id.* ¶ 387, Android 1.6’s Compatibility Definition document, *id.* at ¶ 387 n.56, a T-Mobile G1 User Manual, ¶ 388, and code for Android 1.6’s Activity class, *id.* at ¶ 391.

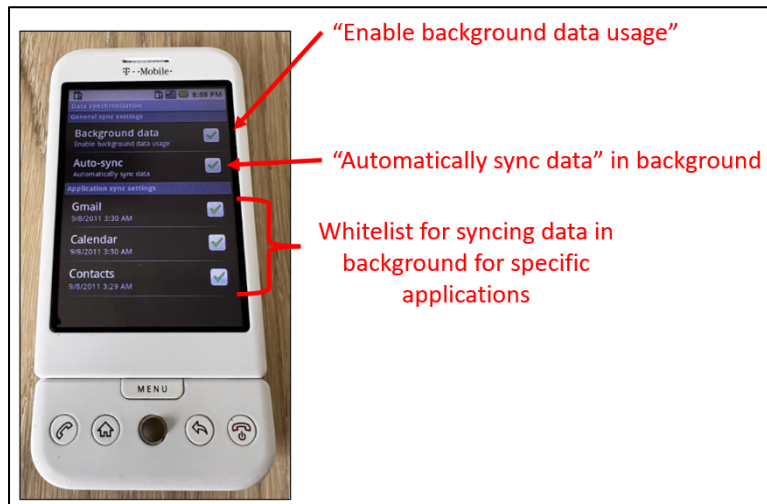
Dr. Schonfeld’s opinion with respect to limitation 1[e] also incorporated his discussion of the “background data usage policies” from limitation 1[f]. *Compare id.* at ¶ 385 (“Further indication that Android OS 1.6 classified applications as foreground or background can be found in *the background data usage policies discussed herein.*”), with *id.* at ¶¶ 393-95 (“**Overview of Background Data Usage Policies**”). Dr. Schonfeld’s discussion for 1[e], as well as his discussion of “background data usage policies” for 1[f], included an analysis of Android 1.6’s “getBackgroundDataSetting,” synchronization settings (e.g., “auto-sync” and application-specific sync settings), as well as Android 1.6’s SyncSettings and SyncManager source code files. *Id.*

Notably, Headwater’s Motion does not challenge Dr. Schonfeld’s opinion that the T-Mobile G1 running Android 1.6 satisfies limitation 1[e]. The Court must therefore assume, for purposes of deciding Headwater’s Motion, that the T-Mobile G1 is configured to perform the classification recited in limitation 1[e]. *Shure*, 2008 WL 11348002, at *1.

ii. **Limitation 1[f] of the ’976 Patent**

For limitation 1[f] of the ’976 patent, Dr. Schonfeld opined that the “T-Mobile G1 running Android 1.6 allowed an end-user to select: (1) whether to allow, or block, background data usage for applications systemwide using the ‘Background data’ policy setting; and (2) whether to allow, or block, automatic data syncs in the background for specific native Android applications . . . when

those applications were operating in the background.” D.I. 239-1 at ¶ 395.



Id. at ¶ 393. In other words, the T-Mobile G1 running Android 1.6 included multiple differential traffic control policies—discussed below—that could be enabled by an end-user to restrict certain Android applications’ use of the network when operating in the background. *Id.*

Background Data Policy Setting. As explained by Dr. Schonfeld, the T-Mobile G1, running Android OS 1.6, included a “Background Data” policy setting that could be set by an end-user. *Id.* That setting “would be reflected in the ‘getBackgroundDataSetting’ API within the ConnectivityManager class.” *Id.* at ¶ 410. Dr. Schonfeld explained in his Report how this Background Data policy would be used to satisfy the policy portion of limitation 1[f]:

[I]f the “Background data” policy setting shown above was enabled, and thus the “getBackgroundDataSetting” API within the ConnectivityManager class was set to true, then T-Mobile G1 running Android OS 1.6 would allow background applications to access the WWAN modem at a time when data for Internet service activities was communicated through a WWAN modem connection to the at least one WWAN. However, if the “Background data” policy setting shown above was disabled, and thus the “getBackgroundDataSetting” API within the ConnectivityManager class was set to false, then T-Mobile G1 running Android OS 1.6 would block background applications (e.g., Gmail, Calendar, Contacts) from accessing the WWAN network at a time when data for Internet service activities was communicated through a WWAN modem connection to the at least one WWAN.

[REDACTED]

Id. at ¶ 397.⁶

As noted by Dr. Schonfeld, D.I. 239-1 at ¶ 399, Mr. Sharkey testified on behalf of Google that Google designed its own (i.e., “first party”) applications, e.g., Gmail, Calendar and Contacts, to strictly adhere to the “getBackgroundDataSetting” API flag, such that the Background Data policy setting would be enforced on applications that were developed by Google:

[REDACTED]

[REDACTED]

D.I. 238-6 (Sharkey Dep. Tr.) at 232:2-18.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Id. at 237:3-21.

[REDACTED]

[REDACTED]

[REDACTED]

⁶ Headwater’s dispute that “the Background data setting would prevent precisely what Dr. Schonfeld alleges it should not prevent,” D.I. 245 at 24-25, has no place in a motion for summary judgment, where such alleged discrepancies must be viewed in a light most favorable to Samsung.

[REDACTED]

[REDACTED]

Id. at 238:8-239:3 (objection omitted).

While Headwater alleges that this is Dr. Schonfeld's only support for his opinion that the Gmail, Calendar, and Contacts applications adhere to the "getBackgroundDataSetting" flag, D.I. 245 at 10, 12, 20, Headwater ignores Dr. Schonfeld's reliance on other pieces of corroborative evidence. For example, Dr. Schonfeld relies on a "May 2009 Google I/O presentation" (which PowerPoint slides and video have been produced in this case) where Google stated:

*In the Settings app right now, **Settings and Synchronization**, there's a check box in there, and the user can change the **preference for using background data**. Right now, **all of the Google services that are on the device look at that check box, and that's how they figure out what the user wants to do as far as data happening in the background on the device**. So if the user un-checks that box, **the Google services will actually turn off, and they will only synchronize if the user goes into the app and forces it, or if they come back and turn on this check box**.*

D.I. 239-1 at ¶ 400 (quoting Ex. 1, <https://www.youtube.com/watch?v=OUemfrKe65c> (SAM-HW00678150) at 20:03-20:43); Ex. 2 (Presentation) at HW_00092373. In other words, Google stated in 2009 that its own applications looked at the "background data" "check box" to "figure out what the user wants to do as far as data happening in the background of the device." *Id.*

Importantly, Dr. Schonfeld also relied on the physical T-Mobile G1 and a T-Mobile G1 User Manual as evidence that Gmail, Calendar, and Contacts adhered to the phone's "Data Synchronization" settings (including the Background Data policy setting). D.I. 239-1 at ¶¶ 393-94 (Gmail, Calendar, Contacts under Data Synchronization); Ex. 3 (T-Mobile User Manual) at SAMSUNG_PRIORART0005208. According to Dr. Schonfeld, those settings utilized the Android "source code's SyncSettings and SyncManager files," D.I. 239-1 at ¶ 398, which called ConnectivityManager's "getBackgroundDataSetting" to determine whether Gmail, Calendar, or

Contacts should use the network when operating in the background of the device. *Id.* at ¶ 414 (which was incorporated by reference into ¶ 398).

Auto-Sync Policy Setting. According to Dr. Schonfeld, an end-user could also “choose whether to enable the ‘Auto-sync’ policy setting mentioned in the source code’s SyncSettings and SyncManager files.” *Id.* at ¶ 398. Relying on a physical T-Mobile G1, the G1 User Manual, and the SyncSettings and SyncManager files, Dr. Schonfeld opined that, with Auto-Sync, a “user could . . . disallow certain native Android applications (e.g., Gmail, Calendar, Contacts) from accessing the WWAN modem at a time when data for Internet service activities was communicated through a WWAN modem connection to the at least one WWAN to automatically sync data if those applications were classified as being in the ‘background.’” *Id.* (incorporating limitation 1[g] (¶¶ 407-14)). Headwater argues that such a classification does not occur based on out-of-context deposition testimony, D.I. 245 at 20-25, but to the extent Headwater disagrees about the operation of the device or believes there are discrepancies between Dr. Schonfeld’s Report and testimony, Headwater can attempt to make those points during cross-examination. However, that will be a tall hill for Headwater to climb given it did not establish this point in its deposition of Mr. Sharkey.

a) Dr. Schonfeld’s Analysis of Limitation 1[f] is Tied to the Classification from 1[e]

The Court should reject Headwater’s argument that “Dr. Schonfeld fails to show that any application applies the policy in 1[f] based on the classification in 1[e].” D.I. 245 at 14-16, 20-25. As repeatedly explained by Dr. Schonfeld during his deposition, the Background Data and Auto-Sync policies are predicated on the device’s processor first classifying whether an end-user application is in the foreground or the background (i.e., the classification from limitation 1[e]). D.I. 239-4 at 336:20-337:2 (“with respect to 1[f], it’s all the classifications that were performed in

1[e] would apply to 1[f]”), 344:4-17 (“It’s an antecedent classification performed in 1[e] whose results are then evaluated in the context of 1[f].”), 347:5-348:12 (“[A]ny time I mention anything being in the background in 1[f], that means it was already classified as background in connection with 1[e] and now is being used and applied in connection with 1[f] as the claim limitation requires.”); *contra* D.I. 245 at §§ II.A.d-e. Of course, any device that applies background data restrictions must be configured to classify whether the applications are in the background, and that is exactly what Dr. Schonfeld explained the T-Mobile G1 prior art does. *Id.*

Dr. Schonfeld’s Report then directly ties 1[e]’s classification to 1[f]’s differential traffic control policies. For example, as previously mentioned, Dr. Schonfeld incorporated his discussion of the “background data usage policies” from 1[f] into his discussion of 1[e]’s classification requirement. *Compare id.* at ¶¶ 385-89 (“Further indication that Android OS 1.6 classified applications as foreground or background can be found in *the background data usage policies discussed herein.*”), *with id.* at ¶¶ 393-95 (“*Overview of Background Data Usage Policies*” including discussion of the “Background Data” policy setting and the “Auto-Sync” policy setting).

Moreover, Dr. Schonfeld’s discussion for 1[e] also directly ties ActivityManager’s foreground/background classification to the “Background Data” policy setting (i.e., the claimed differential traffic control policy), which he discusses in more detail with respect to limitation 1[f]:

[T]he ActivityManager class in Android 1.6 classified the importance of applications based on, for example, whether they were operating in the foreground or background. See Sharkey Dep. Tr. at 64:3-7; see also id. at 65:10-14 (

Appendix B. ...

/i.e., the

“Background data” policy setting/API

Id. at 66:14-67:7.

Id. at ¶ 382 (citing D.I. 238-6).⁷

Dr. Schonfeld’s Report also discusses ConnectivityManager, getBackgroundDataSetting, synchronization settings, and Android’s Activity class’s foreground/background classifications for both 1[e] and 1[f]. *See id.* at ¶¶ 380-406. For example, Dr. Schonfeld’s analysis for limitation 1[e] included a discussion of the “Auto-Sync” policy discussed in depth with respect to 1[f]. *Id.* at ¶ 387 (discussing “Auto-Sync” for limitation 1[e]’s classification analysis).

b) Dr. Schonfeld’s Obviousness Analyses for 1[e] and 1[f] Rely on the Same Classification

The Court should also reject Headwater’s argument that “Dr. Schonfeld does not opine that it would have been obvious to apply the policy of 1[f] based on the classification of 1[e].” D.I. 245 at 16-17. Dr. Schonfeld opined that the T-Mobile G1’s differential traffic control policies would “selectively block[] access by the first end-user application (*e.g.*, Gmail, Calendar, and Contacts) . . . if the application was classified as not being in the foreground.” D.I. 239-1 at ¶ 396. Moreover, Dr. Schonfeld opined for limitation 1[f] that—even if not anticipated— it would be obvious to program “a T-Mobile G1, running Android OS 1.6, to perform that classification with a reasonable expectation of success . . . using the Activity class in Android OS 1.6, which describes the lifecycle of foreground and background processes.” *Id.* at ¶ 405. He offered that same exact opinion in his obviousness analysis for 1[e]. *Id.* at ¶ 391.

⁷ Headwater’s hidden argument about the “getBackgroundDataSetting” in its discussion of the “Auto-Sync” policy, D.I. 245 at 24, should be rejected. As Headwater is aware, an end-user application (*e.g.*, Gmail, Calendar, or Contacts) could use ActivityManager APIs to know whether it is operating in the foreground or the background, and then look to ConnectivityManager’s “getBackgroundDataSetting” API for an indication as to the Background Data policy setting being applied. Based on information gathered from both classes, an application could then disallow network access for itself when it is classified as operating in the background. That ActivityManager does not “influence ConnectivityManager or its APIs” is irrelevant. *Contra id.*

iii. Limitation 1[g] of the '976 Patent

Headwater's Motion also devotes four pages to its argument that the T-Mobile G1 cannot satisfy limitation 1[g] based on the device's use of the "getBackgroundDataSetting," D.I. 245 at 18-20, or the Auto-Sync policy setting, *id.* at 25-27. But Headwater's arguments rest on fundamental misunderstandings of Dr. Schonfeld's opinions.

Background Data Policy Setting. Dr. Schonfeld identified a "Background Data" policy setting for 1[f] that could be enabled by a user to restrict certain Android applications' use of the network when operating in the background. D.I. 239-1 at ¶¶ 393, 395, 397, 401. Then, Dr. Schonfeld opined, with respect to 1[g], that the "'Background data' policy setting . . . would be reflected in the 'getBackgroundDataSetting' API within the ConnectivityManager class." *Id.* at ¶ 410. "[I]f the value for the 'getBackgroundDataSetting' is false—meaning that a user has unchecked the 'Background data' box in Settings" it would be indicating to "an application that 'uses the network in the background'" that it "should 'stop using the background data.'" *Id.*

Thus, the "getBackgroundDataSetting" API, which is separate from the "Background Data policy setting" discussed for 1[f], "indicated to the first end-user application certain network access conditions based on whether the application was in the 'foreground' or 'background.'" *Id.*

```

240  /**
241   * Returns the value of the setting for background data usage. If false,
242   * applications should not use the network if the application is not in the
243   * foreground. Developers should respect this setting, and check the value
244   * of this before performing any background data operations.
245   * <p>
246   * All applications that have background services that use the network
247   * should listen to {@link #ACTION_BACKGROUND_DATA_SETTING_CHANGED}.
248   *
249   * @return Whether background data usage is allowed.
250   */
251  public boolean getBackgroundDataSetting() {
252      try {
253          return mService.getBackgroundDataSetting();
254      } catch (RemoteException e) {
255          // Err on the side of safety
256          return false;

```

Id. That indication of a network access condition from the “getBackgroundDataSetting API” is based on the applied Background Data policy setting. *Id.* It thus satisfies 1[g] of the ’976 patent.

Moreover, Dr. Schonfeld explained how the evidence confirms that applications saw the background data policy setting. Indeed, as Dr. Schonfeld points out with respect to limitation 1[f], which was incorporated by reference for limitation 1[g], *id.* at ¶ 408 (“I incorporate my analysis with respect to limitation 1[f].”), the T-Mobile G1 running Android 1.6 included the “ACTION_BACKGROUND_DATA_SETTING_CHANGED” broadcast intent, which “indicat[ed] that the setting for background data usage has changed values” to end-user applications. *Id.* at ¶ 393 n.57 (quoting Ex. 4 at HW_00092361).

Auto-Sync Policy Setting. As Dr. Schonfeld explains in his Report, Android’s SyncManager class managed the syncs described in the SyncSettings file, which included the “Auto-sync,” and “Application sync” policy settings. *Id.* at ¶¶ 412-14. Moreover, according to Dr. Schonfeld, Android’s SyncManager class “included APIs for starting, scheduling, or deferring sync operations.” *Id.* at ¶ 414. As recognized by Headwater’s own validity expert, Mr. de la Iglesia, such APIs provide an [REDACTED] [REDACTED]” Ex. 5 (de la Iglesia Dep. Tr.) at 228:22-230:17. Thus, SyncManager APIs indicate information to applications, including network access conditions (e.g., that access be deferred) based on the applied settings. D.I. 239-1 at ¶¶ 412-14. Again, to the extent that Headwater believes Dr. Schonfeld’s Report contradicts his testimony, D.I. 245 at 26-27, that is appropriate fodder for cross-examination, not summary judgment.

2. The T-Mobile G1 Running Android OS 1.0

Because Dr. Schonfeld’s opinions with respect to the T-Mobile G1 running on Android 1.0 include the same analyses, discussed above for Android 1.6, relating to the device’s “Auto Sync”

and “Application Sync” policy settings, Headwater’s arguments with respect to Android 1.0 should be rejected for the same reasons discussed above. *See* Section IV.A.1.

3. Headwater’s Arguments That Invalidity Cannot Be Shown Absent “Source Code” or Dr. Schonfeld Having Personally Interacted with the Prior Art Device Should Be Rejected

Headwater dedicates entire sections of its Motion to arguing that Dr. Schonfeld does not rely on internal “source code or technical documents” describing how Google’s first-party applications (e.g., Gmail, Calendar, and Contacts) were programmed to respond to the “getBackgroundDataSetting,” and did not personally interact with a physical T-Mobile G1 device. *See* D.I. 245 at Sections II.A.1.a-c and II.A.2.b-d. The Court should reject these arguments.⁸

First, as described above (and in Section VI below), Dr. Schonfeld’s opinions were based on substantial supporting evidence in the form of: (1) Android OS source code, including for the Activity, ActivityManager, ConnectivityManager, SyncSettings, and SyncManager files among others; (2) a technical presentation from Google (for which Samsung produced the PowerPoint slides and video); (3) a physical T-Mobile G1 device; (4) a T-Mobile G1 User Manual; (5) Android compatibility documents; and (6) additional witness testimony, including from T-Mobile’s corporate designee, Hannah Sifuentes, who authenticated and testified about the physical T-Mobile G1 produced by Samsung in this litigation. *See, e.g.*, D.I. 239-1 at ¶¶ 380-421, 487-514; D.I. 239-1 at Appendix B, ¶¶ 17-29, 45-50. Dr. Schonfeld did not need to personally interact with the T-

⁸ Headwater’s argument that Dr. Schonfeld only “assumes Mr. Sharkey *potentially* had conversations with other Google developers about *unspecified* applications,” D.I. 245 at 13, should also be rejected, as Mr. Sharkey expressly testified that he had such conversations with Google developers about Gmail and Contacts. D.I. 238-6 (Sharkey Dep. Tr.) at 232:2-18, 237:3-21, 238:8-239:3. And, contrary to Headwater’s Motion, Mr. Sharkey did not testify that he had no knowledge of how such apps were programmed. *See* Section VI, *infra.* at Response to SUMF 10.

Mobile G1 where, as here, he had images of the G1, user manuals for the G1, Android source code that ran on the G1, and T-Mobile's own testimony authenticating and describing in detail the G1 and its settings/applications. *Contra* D.I. 245 at 11-12, 19-20, 25.

Second, Headwater identifies no law mandating reliance on "source code" where, as here, Dr. Schonfeld performed a limitation-by-limitation mapping of the asserted claims to the prior art T-Mobile G1 running Android 1.6 or 1.0 using the evidence described above.⁹ However, as various courts have held, when performing a limitation-by-limitation analysis, "citation of source code is not necessary when equivalent information is available from other sources." *Network Prot. Scis., LLC v. Fortinet, Inc.*, No. C 12-01106 WHA, 2013 WL 5402089, at *4 (N.D. Cal. Sept. 26, 2013) (denying motion for summary judgment); *see also Drone Techs., Inc. v. Parrot S.A.*, 838 F.3d 1283, 1300 (Fed. Cir. 2016) ("source code is not necessary in every case"); *i4i Ltd. P'ship v. Microsoft Corp.*, 598 F.3d 831, 848 (Fed. Cir. 2010) (noting fact that invalidity expert did not rely on source code was something the jury could consider), *aff'd*, 564 U.S. 91, (2011).

Third, Headwater's "source code" argument completely ignores Dr. Schonfeld's obviousness opinion (which does not need to show how any applications were actually programmed). Indeed, Dr. Schonfeld opined that it would have also been obvious to a POSITA "to provide a mechanism that, among other things, enforces the ConnectivityManager class's 'getBackgroundDataSetting' API" on "applications to save battery life." D.I. 239-1 at ¶ 403. According to Dr. Schonfeld, a POSITA would have been motivated to program the T-Mobile G1 running Android 1.6 to have applications receive the "getBackgroundDataSetting" API indication

⁹ Headwater's argument is at odds with its assertions that "ItsOn" practiced the asserted claims despite ItsOn source code not being produced, analyzed, or tested, and none of Headwater's experts performing a limitation-by-limitation mapping of the claims to an ItsOn product. D.I. 233.

and adhere to the applied Background Data policy setting, as Google’s May 27, 2009 technical presentation entitled “Coding for Life – Battery Life, That Is” said to do just that. *Id.* (citing D.I. 238-6). Dr. Schonfeld’s obviousness opinion does not need application source code.

B. Dr. Schonfeld Demonstrated That the T-Mobile G1, Running Android OS 1.6 with the JuiceDefender Application, Anticipates the Asserted Claims

The Court should reject Headwater’s JuiceDefender arguments. D.I. 245 at 27-29.

Headwater’s first argument relies on the fact that “JuiceDefender is not part of the Android operating system” and that Dr. Schonfeld includes separate “obviousness opinions” where “JuiceDefender would supply additional limitations missing from Android.” *Id.* at 28. But there is no requirement that an application/program be part of the prior art’s underlying operating system; there is no dispute that a Windows computer including Microsoft Word is a single system.

Headwater’s second argument relies on a misunderstanding of the relevant law regarding the “known or used” prong of pre-AIA 35 U.S.C. § 102(a). *Id.* at 28-29. 102(a) does not always require a showing that the prior art system was “used in the US.” *Id.* at 29. Rather, it can be met if someone in the U.S. simply knew about the prior art system. 35 U.S.C. § 102(a). And here, there is undisputed evidence that: (1) the T-Mobile G1 was one of only a few Android phones available in the U.S. in January 2010; (2) JuiceDefender 0.5 Beta was released to the public for download in the U.S. via the Google Play store in January 2010; and (3) “JuiceDefender is software designed to be run on a mobile device, and thus the § 102 ‘system’ is a device that has Juice Defender installed and executing on it.” D.I. 239-1 at ¶¶ 189-212. Whether the T-Mobile G1 with JuiceDefender installed qualifies as a single system under § 102(a) is a question of fact best left for the jury to decide. *EVM Sys.*, 2015 WL 4911090, at *2.

V. CONCLUSION

For the foregoing reasons, Samsung respectfully requests that the Court deny Headwater’s

“Motion for Partial Summary Judgment of: (1) No Invalidity Based on the T-Mobile G1 System and (2) No Anticipation Based on Android 1.6 Plus Juice Defender.”

VI. RESPONSE TO HEADWATER’S STATEMENT OF MATERIAL FACTS¹⁰

1. Not Disputed.

1.¹¹ **Disputed-in-Part.** Dr. Schonfeld’s Report relies on ActivityManager as support for his opinion that the prior art T-Mobile G1’s “processor” classifies whether applications are in the foreground or background for purposes of the ’976 patent’s limitation 1[e]. D.I. 239-1 at ¶ 382. Indeed, Android’s ActivityManager includes an API that allows end-user applications to query whether they are in the foreground or background. Ex. 5 (de la Iglesia Dep. Tr.) at 231:18-20. However, with respect to limitation 1[e] of the ’976 patent, Dr. Schonfeld’s Report also relies on witness testimony, Headwater’s infringement contentions, Android’s ConnectivityManager class, Android’s Activity class, a physical T-Mobile G1 device, a T-Mobile G1 User Manual, and “Android 1.6’s Compatibility Definition” document, among other evidence. *E.g.*, D.I. 239-1 at ¶¶ 380-91, 487-94; D.I. 239-1 at Appendix B, ¶¶ 17-29, 45-50; D.I. 238-6 at 41:6-20, 62:2-20.

2. Not disputed.

3. **Disputed.** ’976 element 1[f] expressly requires that the disallowance be “when the one or more processors classify the first end-user application as not interacting in the device display foreground with the user.” D.I. 42-6 (’976 patent), cl. 1.

4. Disputed. Dr. Schonfeld’s analysis of limitation 1[f] of the ’976 patent opines that

¹⁰ Headwater’s “Statement of Undisputed Material Facts” contains no citations to evidence demonstrating that any such facts are actually “undisputed.” This is unsurprising, given that most of Headwater’s alleged “facts” are disputed.

¹¹ Headwater’s motion for summary judgment of no invalidity appears to mistakenly list two alleged “statement[s] of undisputed material fact” as “SUMF 1.” *See* D.I. 245 at 4.

the “T-Mobile G1 running Android OS 1.6 with native Android applications (e.g., Gmail, Calendar, and Contacts) would apply a differential traffic control policy to Internet service activity . . . such that Internet service activity on behalf of the first end-user application is disallowed *when the one or more processors classify the first end-user application as not being in the foreground.*” D.I. 239-1 at ¶ 395; *see also id.* at ¶ 404 (opining “it would have been obvious to a POSITA *to classify whether an application is interacting in the device display foreground with the user*” in context of limitation 1[f]). As Dr. Schonfeld explained during his deposition, the opinion set forth in his Report with respect to limitation 1[f] is predicated on the device having already made the antecedent classification from limitation 1[e]. D.I. 239-4 at 336:20-337:2, 344:4-17, 347:5-348:12. In any event, Dr. Schonfeld’s analysis of limitation 1[e] incorporates his discussion from 1[f] of the background data usage policies, and his analyses of limitations 1[e] and 1[f] both address the `getBackgroundDataSetting` and `Auto-Sync` setting, which can only apply if an application/process has been classified as operating in the background, as well as Android’s Activity class’s foreground/background classifications. D.I. 239-1 at ¶¶ 380-406, 487-503.

5. **Not disputed.**

6. **Not disputed.** However, while source code for the Gmail, Calendar, and Contacts applications was not public as of May 25, 2010, the relevant functionality (including the applications’ adherence to Android’s `getBackgroundDataSetting` and `Synchronization Settings`) was known to the public before the May 25, 2010 priority date via at least user manuals, public Google presentations, and Android OS code. D.I. 239-1 at ¶¶ 183, 400, 388, 394.

7. **Disputed.** While it is unclear what Headwater is referring to as “technical documentation,” Dr. Schonfeld reviewed, and repeatedly discusses in his Report, the T-Mobile G1 User Manual, which explains that Google applications, such as Gmail, Calendar, and Contacts,

adhere to the T-Mobile G1's Data Synchronization settings. *E.g.*, D.I. 239-1 at ¶¶ 149, 388, 393, 394, 395, 398, 488, 496, 497, 500. Moreover, Dr. Schonfeld reviewed, and discusses in his Report, Google's May 27, 2009 technical presentation entitled "Coding for Life – Battery Life, That Is" by Jeff Sharkey, which noted that as of May 2009, "all of the Google services that are on the device," such as Gmail, Calendar, and Contacts, "look at that [background data] check box, and that's how they figure out what the user wants to do as far as data happening in the background on the device." D.I. 239-1 at ¶ 183; *see also id.* at ¶¶ 177-88.

8. **Disputed.** Although Dr. Schonfeld did not personally handle the produced T-Mobile G1 prior to his deposition, Dr. Schonfeld reviewed the operation of that device. As noted in Headwater's motion, "Dr. Schonfeld's report is replete with images depicting the physical T-Mobile G1 produced by Samsung in this case." D.I. 245 at 12. Indeed, Dr. Schonfeld repeatedly discusses the operation of the physical T-Mobile G1 produced by Samsung in this case in support of his opinions concerning anticipation and obviousness of the asserted claims. *E.g.*, D.I. 239-1 at ¶¶ 150, 193, 194, 195, 197, 268, 269, 275, 281, 297, 306, 309, 310, 387, 388, 393, 394, 398, 410, 416, 429, 430, 435, 436, 472, 473, 585, 586, 589, 594, 602, 603, 617, 618, 691, 692, 695, 702, 703, 704, 797, 798, 801, 806, 807, 808, 811, 821, 886, 887, 890, 895, 896, 897, 907, 915, 993, 994, 997, 1033, 1034, 1035, 1123, 1124, 1129, 1134, 1135, 1136, 1139, 1140, 1282, 1283. Moreover, Dr. Schonfeld reviewed and relied upon the T-Mobile G1 User Manual as well as the testimony of T-Mobile's 30(b)(6) witness, Hannah Sifuentes, who reviewed, authenticated, and discussed in great detail the settings/applications loaded on the T-Mobile G1, and the step-by-step use and associated screenshots during her deposition. *See, e.g.*, D.I. 239-1 at ¶¶ 193-98.

9. **Disputed.** Samsung agrees that Dr. Schonfeld relied in-part on deposition testimony from Google's 30(b)(6) witness, Jeff Sharkey, discussing the operation of Google's

[REDACTED]

first-party applications. However, that deposition is not the only basis for his opinions, as Dr. Schonfeld also relied on: (1) additional testimony (including testimony from Hannah Sifuentes, James Lavine, and James Fitzgerald); (2) Android OS source code (including source code related to Android’s ConnectivityManager, ActivityManager, SyncManager, SyncSettings, and Activity class) that would be used by Google’s first-party applications; (3) a physical T-Mobile G1 device; (4) a T-Mobile G1 User Manual; (5) “Android 1.6’s Compatibility Definition” document; and (6) Google’s May 27, 2009 technical presentation entitled “Coding for Life – Battery Life, That Is” by Jeff Sharkey (including the PowerPoint slides, YouTube video, and transcript associated with this 2009 presentation). *See generally* D.I. 239-1; D.I. 239-1 at Appendix B.

10. **Disputed.** Mr. Sharkey never testified that he was not the developer of any of the Google end-user applications discussed in Dr. Schonfeld’s Report (e.g., Gmail, Calendar, Contacts) or that he was unfamiliar with their source code. Headwater’s only apparent support for this “fact” comes from 233:19-24 and 236:2-237:1 of Jeff Sharkey’s deposition transcript. D.I. 245 at 13. However, at 233:19-24 Jeff Sharkey only testified that he did not [REDACTED]

[REDACTED] D.I. 238-6 at 233:19-24, which is not one of applications discussed/relied on in Dr. Schonfeld’s Report. *Id.* at 236:2-237:1, Mr. Sharkey testified that [REDACTED]

[REDACTED]

[REDACTED] indicating that Mr. Sharkey was familiar with the functionalities of the relevant Google applications. *Id.* at 26:12-19, 236:2-237:1. Mr. Sharkey testified at length—based on discussions with various Google first-party development teams—about how [REDACTED]

[REDACTED] *E.g., id.* at 232:2-18, 233:11-18, 235:21-240:12.

11. **Disputed.** Mr. Sharkey’s testimony is not hearsay, but even if it was, expert witnesses can rely on hearsay in forming their opinions. In any event, Samsung produced additional evidence to corroborate Mr. Sharkey’s testimony that Google end-user applications followed “best practices.” For example, Samsung produced Google’s May 27, 2009 technical presentation entitled “Coding for Life – Battery Life, That Is” (including the PowerPoint slides and YouTube video associated with this 2009 presentation). D.I. 239-1 at ¶¶ 177-88. That presentation stated that “all of the Google services that are on the device,” such as Gmail, Calendar, and Contacts, “look at that [background data] check box, and that’s how they figure out what the user wants to do as far as data happening in the background on the device.” D.I. 239-1 at ¶ 183; *see also id.* at ¶¶ 177-88. Samsung also produced the T-Mobile G1 User Manual, which states that the device’s Data Synchronization settings, including Auto-Sync, apply to Gmail, Calendar, and Contacts. *E.g.*, D.I. 239-1 at ¶¶ 388, 394. Moreover, Samsung produced the physical T-Mobile G1 device, showing the device’s Background Data and synchronization settings, which the device itself makes clear apply to Gmail, Calendar, and Contacts. *E.g.*, D.I. 239-1 at ¶¶ 150, 193, 194, 195, 197, 268, 269, 275, 281, 297, 306, 309, 310, 387, 388, 393, 394, 398, 410, 416, 429, 430, 435, 436, 472, 473, 585, 586, 589, 594, 602, 603, 617, 618, 691, 692, 695, 702, 703, 704, 797, 798, 801, 806, 807, 808, 811, 821, 886, 887, 890, 895, 896, 897, 907, 915, 993, 994, 997, 1033, 1034, 1035, 1123, 1124, 1129, 1134, 1135, 1136, 1139, 1140, 1282, 1283. Furthermore, Samsung produced source code for Android OS versions 1.6 and 1.0, which includes, among other things, code for the device’s ConnectivityManager class and SyncManager class, which oversee the data synchronization settings (including for Gmail, Calendar, and Contacts) shown in the T-Mobile G1 User Manual and physical T-Mobile G1 device. *E.g.*, D.I. 239-1 at ¶ 414 (Android 1.6’s SyncManager class calls the ConnectivityManager class to check the

“getBackgroundDataSetting”); D.I. 239-1 at Appendix B, ¶¶ 25-29, 39, 48-50, 54.

12. **Disputed.** Mr. Sharkey’s 30(b)(6) testimony that [REDACTED] is itself evidence that is properly relied upon by Dr. Schonfeld. *See, e.g.*, D.I. 239-1 at ¶ 399. Further, as stated above, Samsung also produced Google’s May 27, 2009 technical presentation entitled “Coding for Life – Battery Life, That Is” by Jeff Sharkey (including the PowerPoint slides, YouTube video, and transcript associated with this 2009 presentation). D.I. 239-1 at ¶¶ 177-88. That presentation stated that “all of the Google services that are on the device,” such as Gmail, Calendar, and Contacts, “look at that [background data] check box, and that’s how they figure out what the user wants to do as far as data happening in the background on the device.” *Id.* at ¶¶ 400-01. Additionally, Samsung produced source code for Android OS 1.6, which includes, among other things, source code for the device’s ConnectivityManager class and SyncManager class, which oversee the data synchronization / background data settings (including for Gmail, Calendar, and Contacts) shown in the physical T-Mobile G1 device. *E.g.*, D.I. 239-1 at ¶ 414 (Android 1.6’s SyncManager class calls the ConnectivityManager class to check the “getBackgroundDataSetting”); D.I. 239-1 at Appendix B, ¶¶ 25-29, 39, 48-50, 54.

13. **Disputed.** Dr. Schonfeld’s analysis of limitation 1[e] for the ’976 patent, which discusses the foreground/background classification, is not limited to a discussion of ActivityManager’ classification “of the end user application being in the foreground based on ‘importance values.’” *See generally* D.I. 239-1 at ¶¶ 380-91. In any event, Headwater’s own validity expert conceded that Android’s ActivityManager includes an API that allows end-user applications to query whether they are in the foreground of background. Ex. 5 (de la Iglesia Dep. Tr.) at 231:18-20. As explained in Dr. Schonfeld’s Report, based on evidence including the T-

Mobile G1 User Manual, “if a user unchecked the ‘Auto-sync’ box, they would be disallowing applications, such as Gmail, Calendar, and Contacts, that are capable of running in a background state or as a foreground application from automatically syncing data while operating in the background.” D.I. 239-1 at ¶ 393 (citing Ex. 3 (T-Mobile User Manual) at SAMSUNG_PRIORART0005207 (“Data syncing occurs in the background[.]”). To know whether an application/process is in the “background” with respect to the data synchronization functions discussed for 1[f], the application could have queried ActivityManager using its API for limitation 1[e]. D.I. 239-4 at 336:20-337:2, 344:4-17, 347:5-348:12.

14. **Disputed.** While Auto-Sync can be disabled for applications running in the foreground or background, Dr. Schonfeld did not testify that it will always “be disabled regardless of whether the end user application is running in the foreground or background.”

15. **Disputed** for the reasons discussed with respect to “SUMF 11” and “SUMF 12.”

16. **Disputed** for the reasons discussed with respect to “SUMF 11” and “SUMF 12.”

17. **Disputed.** As an initial matter, claim 1 of the ’976 patent requires a processor that is configured to indicate a “network access condition” to an application; it does not require showing that an application receives such an indication. D.I. 42-6 (’976 patent), cl. 1. In any event, Samsung produced source code showing that the T-Mobile G1 running Android 1.6 and/or 1.0 includes a processor that is configured to indicate a network access condition based on an applied first differential traffic control policy. D.I. 239-1 at ¶¶ 407-21 (citing source code showing that the getBackgroundDataSetting API flag indicates whether an application should use the network depending on whether it is in the foreground or background as well as SyncManager code for the device’s settings as to synchronizing data in the background), 504-14 (SyncManager code for the device’s settings for synchronizing data in the background); *see also* Ex. 6 (Headwater 1st

Supp. Resp. to Samsung RFA 31) (admitting the [REDACTED]

[REDACTED]

[REDACTED]

18. **Not Disputed.** However, pre-AIA 35 U.S.C. § 102(a) does not require installation of JuiceDefender version 0.5 Beta on a T-Mobile G1 running Android 1.6 in the United States.

20.¹² **Disputed.** Claim 1 of the '976 patent requires “one or more processors configured to” perform certain recited functions. D.I. 42-6 ('976 patent), cl. 1. Claim 1 does not care whether these functions are carried out by an operating system installed on the processor, or by an application installed on the processor. *Id.* According to Dr. Schonfeld, for purposes of anticipation, “[t]he claim as written describes controlling network access for applications by a ‘processor,’” and “the processor for T-Mobile G1 running Android OS 1.6 included APIs that notified end-user applications of the end-user’s desire to use or not use background data.” D.I. 239-1 at ¶ 402. “If any application (e.g., Gmail, Calendar, Contacts) was programmed to adhere to those APIs (e.g., “getBackgroundDataSetting”), as was the case with T-Mobile G1 running Android OS 1.6, then the processor would be applying, via that API, a policy that dictated whether those particular applications would be able to access the network.” *Id.*

21. **Disputed** for the reasons discussed with respect to “SUMF 20.”

22. **Not disputed.**

23. **Not disputed.**

24. **Disputed** for the reasons discussed with respect to “SUMF 4.”

¹² Headwater’s motion for summary judgment of no invalidity appears to mistakenly skip “SUMF 19” from its alleged “statement of undisputed material facts.” *See* D.I. 245 at 5.

25. **Disputed** for the reasons discussed with respect to “SUMF 4.”

26. **Disputed.** Dr. Schonfeld opined that the “T-Mobile G1 running Android 1.6 allowed an end-user to select ... whether to allow, or block, background data usage for applications systemwide using the ‘Background data’ policy setting,” which can be viewed by a user in the data synchronizations menu of the settings application in the T-Mobile G1. D.I. 239-1 at ¶¶ 395, 393, 397 (“the ‘Background data’ policy setting), 398 (same), 401 (same). Separately, Dr. Schonfeld opined that the “getBackgroundDataSetting” API flag, which reflected the end-user’s preference for the “‘Background data’ policy setting,” “indicated to the first end-user application certain network access conditions based on whether the application was in the ‘foreground’ or ‘background.’” *Id.* at ¶¶ 410-11; *see also id.* at ¶¶ 416, 420.

27. **Disputed.** Dr. Schonfeld opined that the “Android OS 1.6’s SyncSettings file maintains and configures the display of the settings tied to the ‘Background Data,’ ‘Auto-sync,’ and ‘Application sync settings’ ... which restricted the ability for certain native Android applications (e.g., Gmail, Calendar, Contacts) to sync data in the background.” D.I. 239-1 at ¶¶ 412-413. He also opined that the “Android OS 1.6’s SyncManager class included APIs that managed the syncs described in the SyncSettings file” and included a source code snippet in his Report illustrating how the SyncManager called the ConnectivityManager’s “getBackgroundDataSetting,” when determining whether to sync data in the background. *Id.* at ¶ 414. According to Dr. Schonfeld, for both Android OS 1.6 and 1.0, a POSITA would have understood that the SyncManager APIs associated with the “Auto-sync” and “Application sync settings” would have indicated to the first end-user application certain network access conditions based on the Background Data and Auto-Sync policies being applied. *Id.* at ¶¶ 418, 504-11.

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Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing document was filed electronically in compliance with Local Rule CV-5 on May 31, 2024. As of this date, all counsel of record had consented to electronic service and are being served with a copy of this document through the Court's CM/ECF system under Local Rule CV-5(a)(3)(A).

/s/ Jared Hartzman

Jared Hartzman